

Global Challenges in Human Factors and Medical Systems

Human Factors/Medical Device Mini-Symposium

August 2-3, 2000

International Ergonomics Association and

Human Factors and Ergonomics Society

San Diego, California

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Objectives

- *Identify requirements*
- *identify areas of need for human factors principles*
- *Identify next generation technologies*
- *Identify gaps in human factors science*
- *Foster the exchange of scientific expertise*



Session #1

- *Medical Device Requirements for the Global Market*
(Chair: **Col. Valerie J. Rice**)
 - 1 Charles Sawyer, *Medical Device Requirements, Human Factors, and the Food and Drug Administration (FDA)*
 - 2 Carl Wallroth, *Handling of Use Errors with Medical Devices* Denis G. Roy, *Medical Device Requirements: A View from Canada*



Session #2

- *Global Standardization of Human Factors for Medical Devices and Systems* **(Chair: Michael Wiklund,)**
 - 1 Michael Wiklund, *Overview of Medical Standards Development Efforts*
 - 2 Daryle Gardner-Bonneau, *Part 1 of the AAMI/ANSI HE-48 1993 Revision - The Human Factors Engineering Process*
 - 3 Peter B. Carstensen, *IEC Develops Collateral Standard for Medical Device Design*
 - 4 Matthew B. Weinger, *How Will New Standards Affect Medical Practice?*



Session #3

- *Human Factors Perspectives on Medical Device Information in the Global Market* **(Co-Chair#1: Michael S. Wogalter, Co-Chair #2: James R. Callan.**
 - 1 Michael J. Kalsher and Michael S. Wogalter, *Warnings and Instructions: Design Factors for Medical Devices and Systems*
 - 2 Ruth Day, *Cognitive Tasks for Medical Device Evaluation*
 - 3 James R. Callan and David A. Kobus, *Misadventures of Medical Labeling: Lessons Learned*
 - 4 Judy Edworthy, *Medical device alarms: Equipment or patient-centered?*
 - 5 James R. Callan and Michael S. Wogalter, *Discussion on the Future Prospects of Medical Device Information*

Session #4

- *Advanced Technology Applications for Product Design*
(Chair: William H. Muto)

- 1 Dwight Holland, *Evolving Medical Issues and Technologies for Preserving Human Performance During Long-Duration Spaceflight*
- 2 Ron Kaye, *Human Factors in Medical Device Use Safety: How to Meet the New Challenges*
- 3 Corinna Lathan, *Home Care Technologies of the Future*
- 4 Frank Tendick, *Advanced Interfaces for Minimally Invasive Surgery*
- 5 Discussant, Barry H. Beith.



Session #5

- Beyond 2000: Charting a Course for User-Centered Medical Devices and Systems (**Chair: Anne Mavor.**
 - 1 Col. Valerie J. Rice, *Key Outcome/Lessons On Medical Device Design And Labeling For The Global Market*
 - 2 Michael Wiklund, *Global Standardization of Human Factors and Medical Devices and Systems*
 - 3 Michael S. Wogalter, *Labeling and Instruction for Global Marketing*



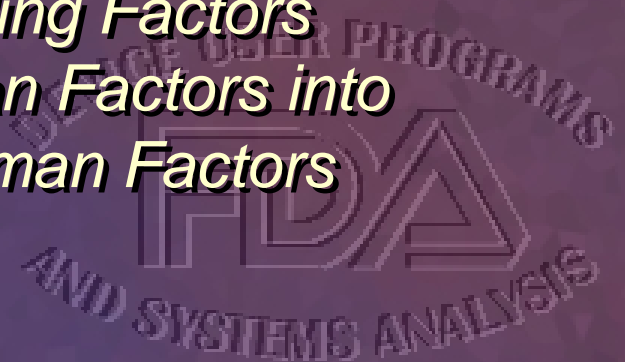
Session #5 (*continued*)

- 4 William H. Muto, *Advanced Technology Applications for Product Design*
- 5 Christopher Wickens, *Human Factors in Aviation—Lessons Learned and Transferability*
- 6 Kim J. Vincente, *Human Factors Lessons Learned---- Other Industries*
- 7 Najmedin Meshkati, *Human Factors Lessons Learned---Other Industries*



Session #6

- Transferring Successful Human Factors to the Medical Context (**Chair: Anne Mavor**)
 - 1 David Gaba, *Key Issue Areas in Medicine to Which Human Factors Can Contribute—from the Medical Perspective*
 - 2 Karlene Roberts, *Key Issue Areas in Medicine to Which Human Factors Can Contribute—from the Perspective of the NRC Committee on Human Factors*
 - 3 John Gosbee, *Barriers and Enabling Factors Associated with Integrating Human Factors into Medicine—Next Steps for the Human Factors Community*



Outputs

- *Summary of the recommendations*
- *Agenda for the future*
- *Working group Committees*

